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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,261	06/20/2003	Moshe Konstantin	021731-9002	7507
8968	7590	08/09/2006	EXAMINER	
GARDNER CARTON & DOUGLAS LLP ATTN: PATENT DOCKET DEPT. 191 N. WACKER DRIVE, SUITE 3700 CHICAGO, IL 60606			FICK, ANTHONY D	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/600,261	Applicant(s) KONSTANTIN, MOSHE	
	Examiner Anthony Fick	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/26/04 2/7/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Givoni (U.S. 6,978,578).

Givoni discloses a panel unit of controllable light transmission. The device is best shown within figure 1.

Regarding claim 1, figure 1 shows the panel unit comprising a pair of spaced-apart transparent/translucent panels, 2 and 2', and a plurality of light-controlling members positioned between the panels and mounted for rotation about their longitudinal axes, 6. Figures 2 and 3 display the light controlling members, 6, each having a substantially light blocking surface, 40, and an engagement surface in contact with an engagement surface of an adjacent light controlling member, 20. Figure 1 further shows gearboxes, 14, that rotate the light controlling members by imparting rotary motion to at least one of the members to rotate the light blocking surfaces and vary the level of light passing through the panel (column 4, paragraphs 5, 6 and 7).

Regarding claim 39, figure 1 shows the panel unit comprising a pair of spaced-apart transparent/translucent panels, 2 and 2', and a plurality of elongated tubular light-controlling members positioned between the panels and mounted for rotation about their longitudinal axes, 6. Figures 2 and 3 display the light controlling members, 6, each having a substantially light blocking surface, 40, a circular engagement surface in contact with an engagement surface of an adjacent light controlling member, 20, and longitudinal light blocking sills projecting radially from the outer surface of the tube, 42 and 42'. Figure 1 further shows gearboxes, 14, that rotate the light controlling members by imparting rotary motion to at least one of the members to rotate the light blocking surfaces and vary the level of light passing through the panel (column 4, paragraphs 5, 6 and 7).

Regarding claim 40, figure 1 shows the panel unit comprising a pair of spaced-apart transparent/translucent panels, 2 and 2', and a plurality of light-controlling members positioned between the panels and mounted for rotation about their longitudinal axes, 6. Figures 2 and 3 display the light controlling members, 6, each having a substantially light blocking surface, 40. Figure 1 further shows gearboxes, 14, that rotate the light controlling members by imparting rotary motion at one end of each of the members to rotate the light blocking surfaces and vary the level of light passing through the panel (column 4, paragraphs 5, 6 and 7).

Regarding claim 46, figure 1 shows the panel unit comprising a pair of spaced-apart transparent/translucent panels, 2 and 2', and a plurality of light-controlling members positioned between the panels and mounted for rotation about their

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longitudinal axes, 6. Figures 2 and 3 display the light controlling members, 6, each having a substantially light blocking surface, 40. Figure 1 further shows gearboxes, 14, that rotate the light controlling members by imparting rotary motion to at least one of the members to rotate the light blocking surfaces and vary the level of light passing through the panel (column 4, paragraphs 5, 6 and 7).

Regarding claim 2, figures 1 and 2 show the panels are generally parallel to each other.

Regarding claims 3, 4 and 43, Givoni discloses the panels are made of a plastic, advantageously made of polycarbonate (column 2, paragraph 16) and figure 2 shows a rectangular cross section of the panel.

Regarding claim 5, figure 1 shows an elongated panel with the light controlling members, 6, generally corresponding in length to the length of the panels.

Regarding claim 8, Givoni discloses the light controlling members are positioned in abutting relationship (column 3, paragraph 3 and figure 2).

Regarding claims 9 through 20, Givoni discloses several embodiments for the light controlling members. In figure 3, the engagement surface, 20, is circular and extends 360 degrees about the circumference of the light controlling members, claims 9 through 11. Figure 3 also shows the members are elongated tubes having an outer circular surface extending at least 180 degrees with a plurality of rings, engagement surfaces 20, spaced along the outer surface to achieve rotation through 360 degrees, claims 12 and 13. Figure 4 shows the light controlling members are elongated tubes having an outer circular rotational surface extending 360 degrees, claim 14. Figure 2

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shows the engagement surfaces in contact while the light controlling members are spaced from each other, claim 15. The light blocking members within figures 3 and 4 are planar and positioned across the diameter of the tube and Givoni discloses the light blocking members and the tubes are co-extruded (column 3, paragraph 6), claims 16 through 19. Figure 5 shows a generally planar light-blocking surface supported within a plurality of rings to achieve rotation through 360 degrees, claim 20.

Regarding claims 21 through 23, figure 3 shows tubular light controlling members including longitudinal sills projecting radially from the outer surface, 42 and 42', that are light blocking (column 3, paragraph 3). Figure 2 further shows these sills abut as the light controlling members rotate.

Regarding claim 24, figure 6 shows light controlling members include a first tube with a hemispherical cross section, 13', and an opaque surface across the diameter of the tube, 41, and a second tube with a hemispherical cross section attached across the diameter of the first tube to provide a 360 degree tubular outer circular rotation surface, 13.

Regarding claims 26 and 27, Givoni discloses the light blocking surfaces are substantially opaque (column 3, paragraph 3) or substantially semi-opaque (column 4, paragraph 2).

Regarding claims 28 through 30, figures 1 and 2 show elongated carriage members, 8, having a series of scalloped surfaces, seen in figures 2, 4, 5, 6 and 7, the carriage member being positioned between the panels with individual light controlling members supported for rotational movement within surfaces, figures 4, 5 and 6. Figure

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7 shows the plurality of carriage members spaced longitudinally along the light controlling members. Figures 1 and 2 show the opposed pairs of top and bottom carriage members, 8 and 9, used to define openings for supporting the light controlling members.

Regarding claim 31, Givoni discloses low friction between the carriage member and the light controlling members (column 4, paragraph 4).

Regarding claim 41, Givoni discloses the light controlling members are positioned in abutting relationship (column 3, paragraph 3 and figure 2).

Regarding claim 42, figure 3 shows tubular light controlling members including longitudinal sills projecting radially from the outer surface, 42 and 42', that are light blocking (column 3, paragraph 3).

Regarding claims 44 and 45, Givoni discloses that the light blocking surfaces can have transparent stripes alternating with opaque stripes (column 4, paragraph 2) thus segmenting the surface into transparent portions and opaque portions on one or all of the light blocking surfaces.

Regarding claim 47, figure 1 shows the means for applying rotary motion are substantially housed between the panels.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Givoni as applied to claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47 above.

The disclosure of Givoni is as stated above for claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47.

The difference between Givoni and claim 6 is the requirement of the length of the panel.

Givoni discloses the use of the panel unit for construction of walls, roofs, awnings, skylights, windows and the like (column 1, paragraph 1). The length of the panel unit will be chosen depending on the specific application for the panel and it would be obvious for one skilled in the art to choose that length. The lengths of walls, roofs, awnings, skylights and windows all fall within the range of 4 feet to 40 feet and the choice of a length within that range would have been obvious in view of Givoni.

The difference between Givoni and claim 38 is the requirement of a plurality of panels joined to adjacent panel units.

Givoni discloses in figure 2, the H shaped connecting member connects the front and rear panels of a single panel unit and also constitutes the connecting member of adjacent panel units (column 2, last paragraph).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a plurality of panel units of Givoni to form a panel system because the units are built for easy connection to adjacent panel units and multiple units allow for a larger coverage area of the panels.

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5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Givoni as applied to claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47 above, and further in view of Man (U.S. 4,889,040).

The disclosure of Givoni is as stated above for claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47.

The difference between Givoni and claim 7 is the requirement of tinted panels.

Man teaches a transparent and sealed louver system. The louver blades and frame system are made from a polycarbonate material. Man further teaches the polycarbonate material can be colored or tinted (column 1, paragraph 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add coloring or tinting as in Man to the panels of Givoni because the colorants can be used for decorating or design tastes (Man column 1, paragraph 3). Because Man and Givoni are both concerned with polycarbonate louver systems, one would have a reasonable expectation of success from the combination. Thus the combination meets claim 7.

6. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Givoni as applied to claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47 above, and further in view of Gillard (U.S. 5,221,363).

The disclosure of Givoni is as stated above for claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47.

The difference between Givoni and claim 25 is the requirement of photovoltaic solar cells on the light blocking surfaces.

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Gillard teaches a window fitting with solar cells attached to the slats of a window blind. Figures 2 and 3 show a panel of solar cells mounted on each slat of the window blind to face the sun when the blinds are in the closed position.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize solar cells as in Gillard on the light blocking surfaces of Givoni because the solar cells generate electrical energy from sunlight incident on the solar cells when the light blocking surfaces of Givoni are in the closed position (Gillard column 3, paragraph 1). Because Givoni and Gillard are both concerned with light blocking structures, one would have a reasonable expectation of success from the combination. Thus the combination meets claim 25.

7. Claims 32 through 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Givoni as applied to claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47 above, and further in view of Metzen et al. (U.S.P.G.Pub 2002/0129553).

The disclosure of Givoni is as stated above for claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47.

The difference between Givoni and claims 32 and 33 is the requirement of specific bands on the engagement surfaces. The difference between Givoni and claims 34 and 35 is the requirement of the light-controlling member to have a cogwheel cross-section.

Metzen teaches a louver system. The plurality of blades are turned utilizing a cogwheel system as shown in figures 4 and 14. The system turns the blades with a belt, chain, rope or toothed rack (paragraph 0010).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ engagement surfaces as in Metzen within the device of Givoni because these engagement surfaces provide the synchronized movement of the individual members (Metzen paragraph 0010). The surfaces of Metzen are notched bands as in claim 33 or high friction materials as in claim 32. It would have been further obvious to one having ordinary skill in the art at the time the invention was made to utilize the cogwheel cross section of Metzen throughout the tubular light controlling member of Givoni because the cross sectional shape allows for better meshing of the member and the gears and Givoni discloses a variety of light controlling member shapes. Because Metzen and Givoni are both concerned with louvered systems, one would have a reasonable expectation of success from the combination.

8. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Givoni as applied to claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47 above, and further in view of Konstantin (U.S. 5,437,129).

The disclosure of Givoni is as stated above for claims 1 through 5, 8 through 24, 26 through 31 and 39 through 47.

The difference between Givoni and claims 36 and 37 is the requirement of non-combustible or fire resistant material within the device.

Konstantin teaches a fire resistant skylight structure. Figure 2 shows the use of light transmitting insulation positioned between two panels of polymeric material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize light transmitting insulation as in Konstantin within the air

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space of the device of Givoni because the insulating material acts as a barrier to flames to prevent the flames from impinging on the lower panel and keep the temperature of the lower panel from rising as fast as it would rise in the absence of insulating material (Konstantin column 7, paragraph 1). Because Givoni and Konstantin are both concerned with transparent building structures, one would have a reasonable expectation of success from the combination. Thus the combination meets claims 36 and 37.

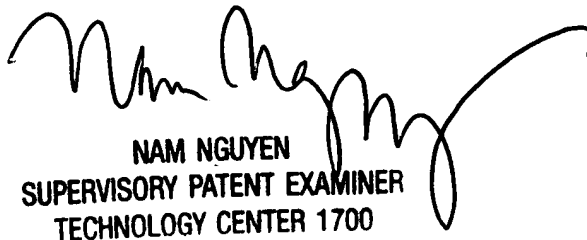
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday thru Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anthony Fick *ADF*
AU 1753
August 3, 2006


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